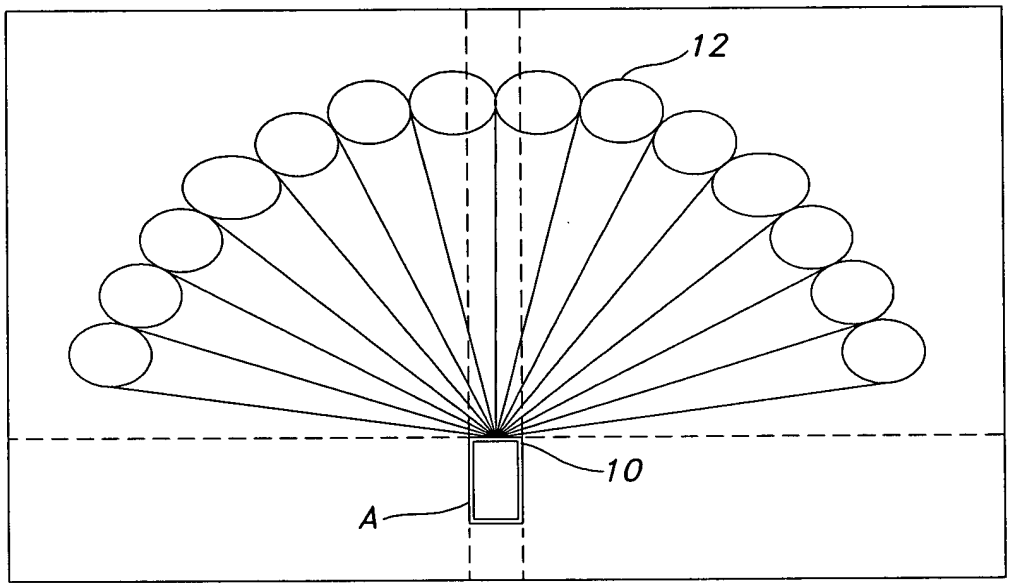


FIG. 1A

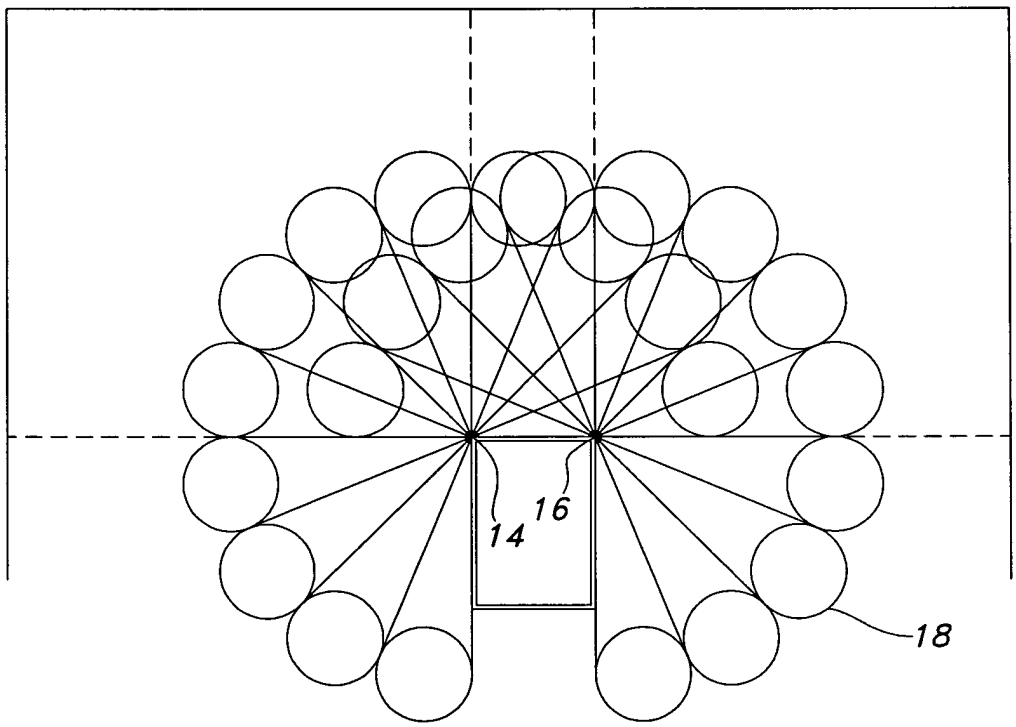


FIG. 1B

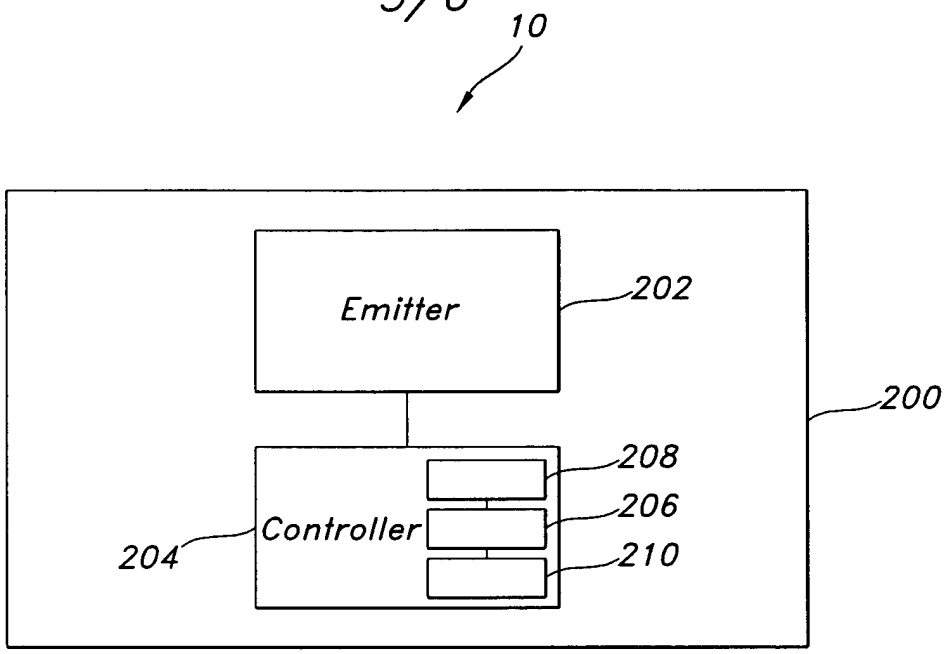

10
Emitter
202
200
208
206
210
Controller
204

FIG. 2A

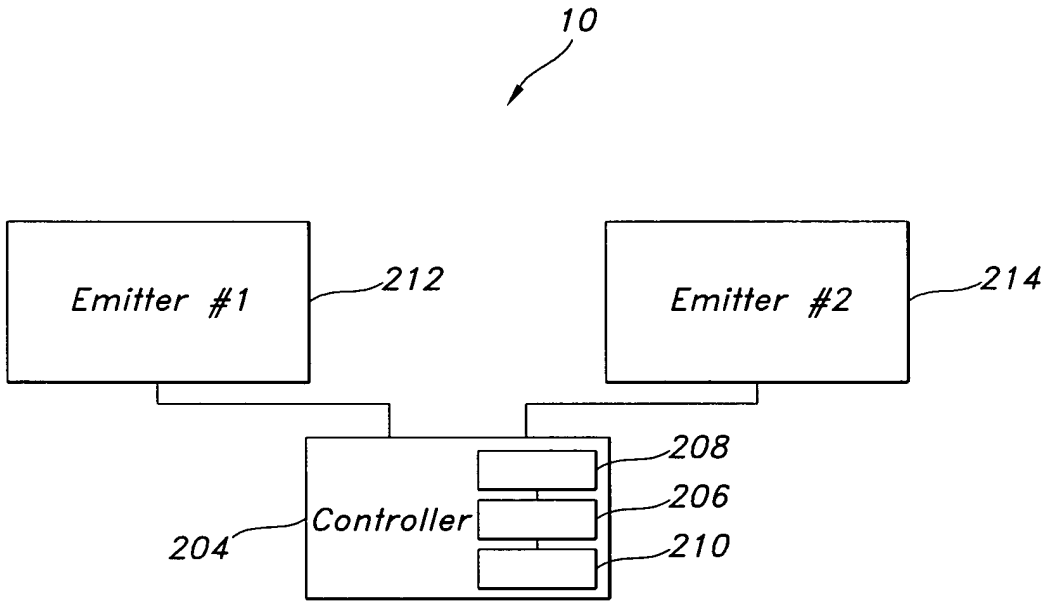
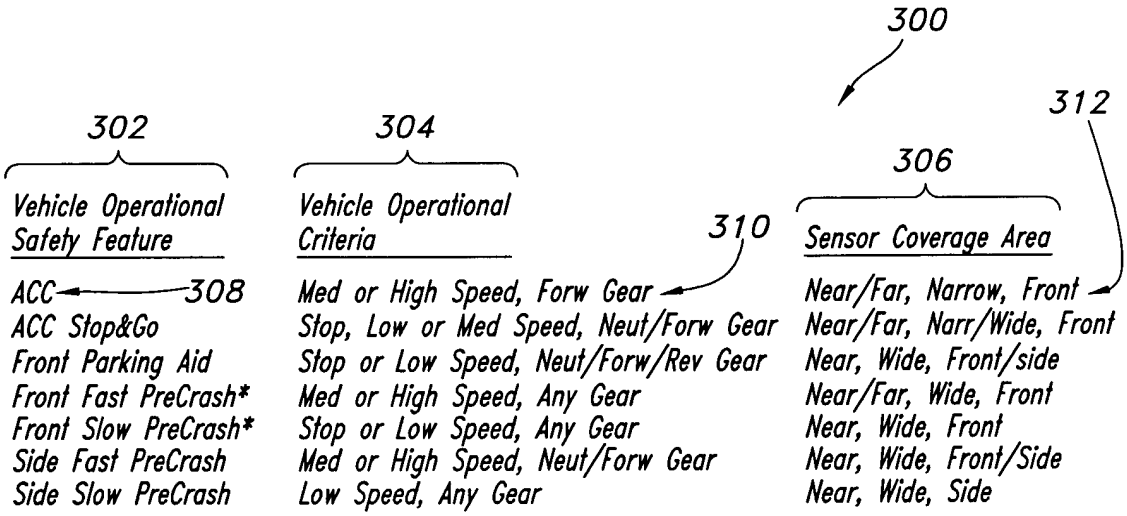

10
Emitter #1
212
Emitter #2
214
208
206
210
Controller
204

FIG. 2B



*Includes Frontal Collision Warning and Pedestrian Detection Features

FIG. 3

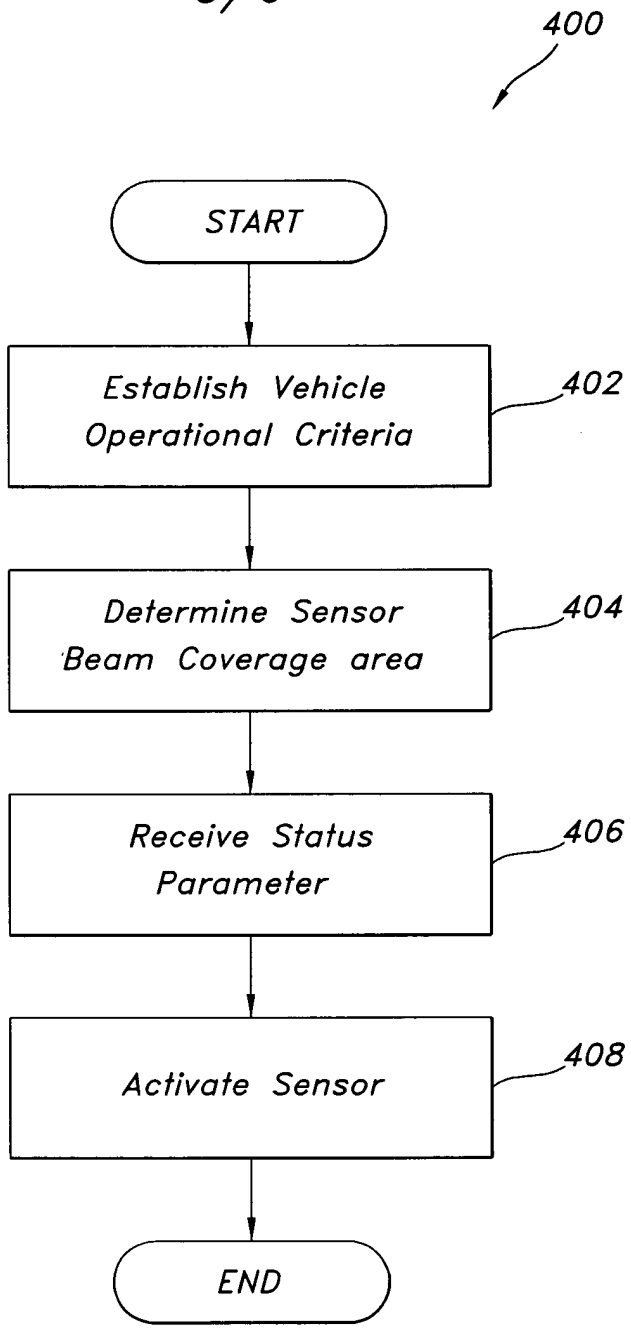

400
START
Establish Vehicle Operational Criteria
402
Determine Sensor Beam Coverage area
404
Receive Status Parameter
406
Activate Sensor
408
END

FIG. 4

Shared Sensor Modes

When Gear = Park

- *Front PreCrash(Auto) + Side Slow PreCrash(Auto)*

When Speed = Stopped, and Gear = Neutral or Forward

- *Front PreCrash(Auto) + Side Slow PreCrash(Auto) + Front Parking Aid(Auto)*
- *Front PreCrash(Auto) + Side Slow PreCrash(Auto) + Front Parking Aid(Auto) + ACC Stop&Go (Comm)*

When Speed = Stopped, and Gear = Reverse

- *Front PreCrash(Auto) + Side Slow PreCrash(Auto) + Front Parking Aid(Auto)*

When Speed = Low Speed, and Gear = Neutral or Forward

- *Front PreCrash(Auto) + Side Slow PreCrash(Auto) + Front Parking Aid(Auto)*
- *Front PreCrash(Auto) + Side Slow PreCrash(Auto) + Front Parking Aid(Auto) + ACC Stop&Go (Comm)*

When Speed = Low Speed, and Gear = Reverse

- *Front PreCrash(Auto) + Side Slow PreCrash(Auto) + Front Parking Aid(Auto)*

When Speed = Medium Speed

- *Front PreCrash (Auto) + Side Fast PreCrash (Auto)*
- *Front PreCrash (Auto) + Side Fast PreCrash (Auto) + ACC (Comm)*
- *Front PreCrash (Auto) + Side Fast PreCrash (Auto) + ACC Stop&Go (Comm)*
- *Front PreCrash (Auto) + Side Fast PreCrash (Auto) + ACC (Comm) + ACC Stop&Go (Comm)*

When Speed = High Speed

- *Front PreCrash (Auto) + Side Fast PreCrash (Auto)*
- *Front PreCrash (Auto) + Side Fast PreCrash (Auto) + ACC (Comm)*

Auto = Automatic (Feature operates if criteria are met)

Comm = Commanded (Feature operates if criteria are met and operator has commanded)

FIG. 5